

National Park Service

National Park Service
U.S. Department of the Interior



**NORTHEAST REGION
INVENTORY AND MONITORING PROGRAM**

NPSpecies Data Entry And Data Management Standards

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DRAFT

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PURPOSE OF DOCUMENT

The NPSpecies database was developed as a means to store, manage and disseminate scientific information on the biodiversity of organisms in National Park Service (NPS) units throughout the United States and its territories. After several years of dealing with numerous data entry protocol issues, it became apparent that a data entry standards manual was needed to maintain accuracy and consistency within the Northeast Region's (NER) park databases.

This manual is intended to supplement the NPS Service-wide Inventory and Monitoring (I&M) Program NPSpecies information provided at the NPSpecies website: <http://science.nature.nps.gov/im/apps/npspp/index.htm>. All networks within the NER I&M Program should refer to this manual in the future for populating their respective NPSpecies park databases, with the exception of Shenandoah National Park, Cape Cod National Seashore and Acadia National Park. These parks are adopting their own standards for database entry.

PART ONE

NPSPECIES DATABASE TRAINING AND STAFF

NPSpecies Database Background Information:

Staff responsible for NPSpecies data entry for any parks within the NER I & M Program should become familiar with this database and its applications by reviewing the available NPSpecies support websites and following the specified protocol as noted below.

NPSpecies Websites

Documents and Training:

<http://science.nature.nps.gov/im/apps/npspp/Documents.htm>

This site provides all the documents and training materials that are currently available for NPSpecies including the User Guide, Data Dictionary, Application Documents, Quality Assurance Documents, Education and Training and Demonstrations. **It is highly recommended the user review all documents under Application Documents. In addition, it is recommended the user complete the training exercises listed under Education and Training for the Desktop and Internet.**

Administration:

<http://science.nature.nps.gov/im/apps/npspp/Administration.htm>

This site provides information on the administration of NPSpecies information including the Points-of-Contact that are responsible for managing NPSpecies information and guidance on managing logins, quality assurance, protected information, ANCS+ Integration (options to get data into both NPSpecies and ANCS+, but only entering the data once), sharing data and data mining.

Biodiversity Service Center:

<http://science.nature.nps.gov/im/inventory/biology/index.htm>

This site describes the services provided by the I&M Biological Inventories project in support of Biological Diversity tools, including NPSpecies, the Biodiversity Data Store, Species New-to-Science and Nature Guides, Converting existing data to NPSpecies format & Uploading Data to the online NPSpecies database.

NPSpecies Data Mining and Geo-Reference Tools:

<http://science.nature.nps.gov/im/apps/npspp/DataMine.htm>

This site provides the results of data mining efforts by the I&M Program, Biological Inventories Project, to acquire NPSpecies data on behalf of all parks.

Citing NPSpecies:

<http://science.nature.nps.gov/im/apps/npspp/CiteNPSpecies.htm>

This site provides suggested examples for citing NPSpecies proper, as well as citing data from the various components of NPSpecies.

Establishing a Point of Contact:

The master version of NPSpecies is a password-protected, web-based system; this is accompanied by a PC-based version that can be run from an individual computer using Microsoft Access. The Service-wide Inventory and Monitoring Program has requested that parks designate Points of Contact (POC) for managing NPSpecies data for each park. Networks must establish and maintain an NPSpecies Point-of-Contact by amending the Network charter. The charter amendment defines the roles and responsibilities of the POC, and provides a means to change the POC designation.

Database work will be closely coordinated between the NCBN Data Manager and individual park staff to ensure that NPSpecies data is readily accessible and available to park personnel. Successful NPSpecies development and administration depends on ongoing coordination and good communication between the POC and park staff. A close working relationship between the POC and park resource management and curatorial staff will be emphasized at all times.

The NCBN Data Manager will serve in the POC role for each park until such time that park species list development and certification is complete. At this time, individual parks will have the choice of naming their own POC or continuing with the NCBN Data Manager as the park POC. It is anticipated that most parks within the network will want the NCBN Data Manager to continue as their POC over the long-term. However, some park units with sufficient natural resource staff and expertise may desire to take over the POC role on-going data base maintenance and quality control once individual park species lists have been developed and certified. In this case, a park may request that the POC designation be changed. The NCBN Data Manager will keep track of POC designations for network parks if they change in the future.

DATA ENTRY

What Data Qualifies for Entry into NPSpecies?

Types of valid scientific documents containing qualified data include:

- Articles published in journals
- Books
- Published and unpublished NPS park reports
- Species lists that include a date and author
- Thesis/dissertations

For entry into NPSpecies, Document must:

- List at least one species within the park or on lands immediately adjacent to that park
- Note exact or approximate observation and/or collection dates
- May or may not have a known author. If author is unknown, enter document into NPSpecies only if the document fills a taxa gap or if the park has requested entry. Regardless, the document can be added to NatureBib.

Types of documents that should not be entered into NPSpecies include:

- Park General Management Plans
- T&E Species Management Plans
- Non-unique species reports or reports that contain data regarding a common species that was inventoried several times in one park. For example, a report titled *Abundance of White Tailed Deer at Fire Island* would be viewed as a non-unique species report. In this case, check to be certain that the species is listed on the Park Species List.
- Beach stranding and storm wash-up reports
- Lists of cultivated organisms present in a park, but not included as part of a park's mission. For example, lists of landscaping plants surrounding a park's buildings would not be entered into NPSpecies unless the plants are included within the park's mission statement.
- Newspaper articles

Sources of Data

Data will be obtained annually for entry into NPSpecies from research, inventories, monitoring and data mining conducted for each park. The POC will work with park staff to develop a tracking system for each of these types of efforts. For example, the Investigator Annual Report may be a sufficient tracking method for research conducted within the parks.

- **Research**-Conducted by NPS staff, other federal agencies, local researchers or park cooperators.
- **Inventory**-Conducted as part of Site Specific Compliance for upcoming development projects in parks, NPS funded taxa specific inventory and incidental observations by experts.
- **Monitoring**-Conducted by NPS staff or other agencies. Examples of this type of monitoring include surveys repeated over several years for fish and macroinvertebrates as part of a water-quality monitoring program or invasive plant surveys conducted by the NPS Invasive Plant Teams within parks.
- **Data mining**- Conducted by researchers and NPS staff. Examples of data mining include work museum and herbaria searches done by taxa experts funded by the NPS I&M Program.

Avoiding Duplicate Data Entry

When new or legacy data is received, the POC must check to make sure the data has not been previously entered into NPSpecies. Occasionally, the same reference may be present for a variety of reasons such as the data are part of a larger document.

The following is a set of steps to ensure that duplicate data is not added to NPSpecies:

- Check Park Database Tracking Log
- Check database References evidence
- If it appears the data is in the database, check the Reference species list to be certain no new species are present. For Vouchers and Observations, sort on exact Data Source name to obtain a species list.

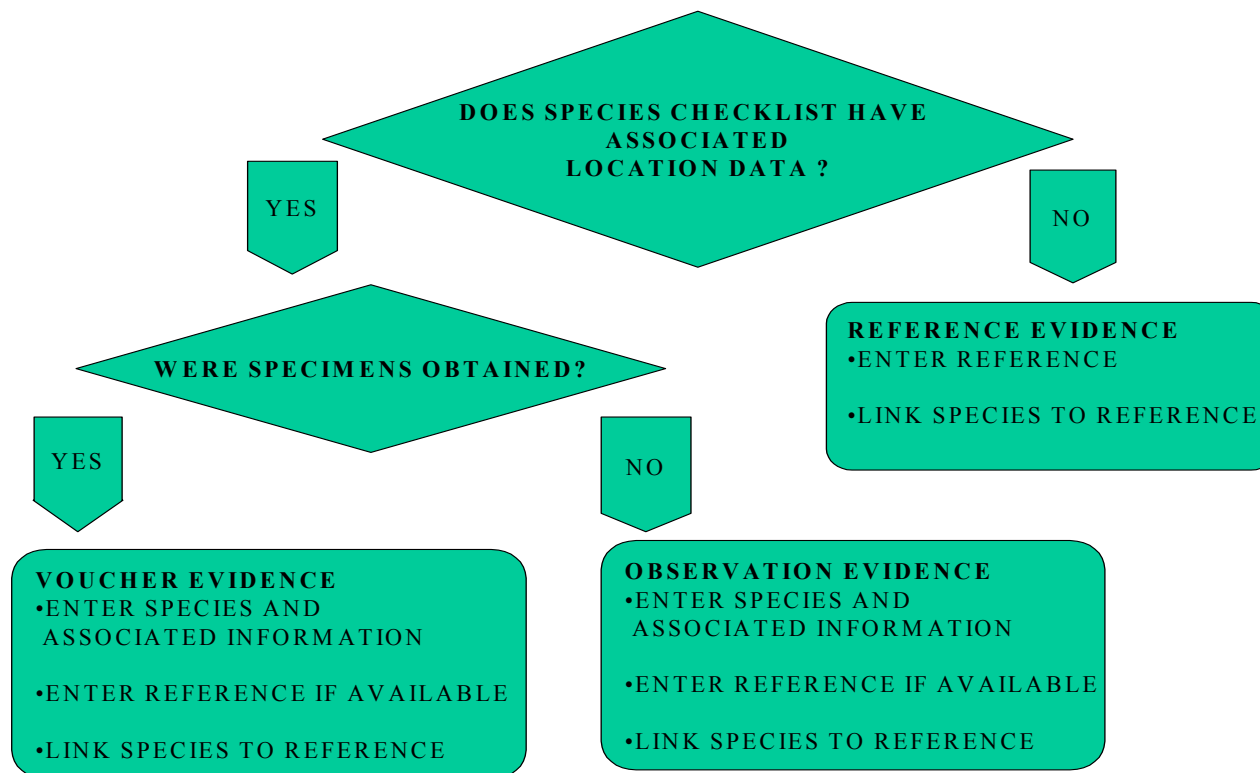
Why Use NPSpecies Desktop Front-End?

- NPSpecies Desktop Front-end was designed for adding new data
- You must know Access very well to use Back-end tables
- Difficult to append text data to Detail fields in back-end
- Desktop Front-end has more Tools than Online version
- The Duplicate Negative TSN problem is not an issue if you work in the Front-end, since you see all species listed for park including negative TSN's

Entering Datasets to NPSpecies

- Do not send hardcopy documents to WASO. Electronically enter data first. Contact WASO for best entry format if unsure.
- Electronic datasets of over 500 observations or vouchers: Contact WASO for possible entry into Dataset Catalog.
- Electronic datasets with over 300 species: Contact WASO for best data entry method.
- Hardcopy datasets with 300 or less species:
 - 1) Determine Type of Evidence (see Figure 1.)
 - 2) Use Desktop front-end
 - 3) Click on Evidence Type (Reference, Voucher or Observation)
 - 4) Add Species
 - 5) Add supporting data in Species Profiles as needed.
 - 6) If Voucher or Observation Evidence, Add Reference if available and link Species to Reference

Figure 1. Determining Types Of Evidence Found In Documents



Park Administrative Units

The current version of the NPSpecies database does not support most designated park administrative units. However, WASO plans on eventually developing separate databases to represent different administrative units within each park. Once the administrative unit option is operational in the online NPSpecies database, these separate databases will be merged into a single database for the park with details down to administrative unit level.

If a park with designated administrative units had just one certified NPSpecies database, it would most likely be rendered inaccurate and useless by the park staff for reasons such as extreme habitat differences between the units and the relatively great distances between each administrative unit. With NER I&M Programs' primary focus on making NPSpecies park databases accurate and useful to the park managers, it has become imperative to find a temporary solution to the administrative unit problem. Until the WASO administrative unit development is complete for NPSpecies online, separate administrative unit databases will be created from the current park database and labeled as such. These databases will be created in the following manner to include only evidence for that administrative unit.

- Prior to starting any work with the database, a tracking log for that database will be developed to note reference, observation and voucher deletions and additions
- The current database from NPSpecies will be downloaded
- A copy of the database will be renamed to include the Administrative Unit Name (Administrative Unit Codes will not be used at this time to avoid confusion at the National level) and include the Park Code. Example: Staten Island_GATE_DATA.mdb
- Per WASO, the Administrative Unit related tables are not ready for use and should not be used at this time.
- In either Desktop Front-end or Back-end, any references not pertinent to the administrative unit will be deleted.
- In the Desktop Back-end, using the Location Field, all non-applicable records in tblVouchers will be deleted.
- In the Desktop Back-end, using the Location Field, all non-applicable records in tblObservations will be deleted.
- In the Desktop Back-end- Records that are not linked to evidence will be deleted from tblNPSpecies by selecting the whole table and clicking delete. (Note: A message stating relationships cannot be broken will appear, click OK. A message asking if you want further messages to be suppressed will appear, click Yes.) Once this process is completed, only evidence associated with your chosen administrative unit will be left in tblNPSpecies.
- New evidence may then be entered into the database if it is available.

Once each of these databases are certified, the I&M Program will then temporarily upload only one of the park's administrative unit databases into NPSpecies Online. Parks staff should be consulted regarding which administrative unit database to upload to NPSpecies. Considerations for choosing this database should include 1) which administrative unit is most used by the public 2) which administrative unit comprises habitat most similar to the other units 3) which administrative unit comprises the most land area for that park. The I&M Program will clearly communicate to WASO that only one of the administrative unit data bases is online for that park. In addition to the uploaded administrative unit, the other administrative unit databases for that park will be made available to the park staff by the I&M Program.

NER Standards for Data Entry

The following table is based on the NPSpecies Data Dictionary (<http://science.nature.nps.gov/im/apps/npspp/Documents.htm>), that defines fields used in NPSpecies and sets standards for data entry. Table 1. further defines some of these standards for the NER.

Table 1. Northeast Region Protocol for NPSpecies Data Dictionary Fields**Common Labels Throughout NPSpecies**

Label	Service-wide Data Dictionary Definition	Data Dictionary Comments/Examples	Northeast Region Standards
Parkcode:		Park Code is ubiquitous throughout the database.	To determine the parkcode for your park go to: https://science1.nature.nps.gov/npspecies/NPSMasterPark
Standard Scientific Name			<ul style="list-style-type: none"> In certain cases, only a genus is listed in an author's species list due to uncertainty of species identification. In these cases, enter the Genus into the Park Species List even if a species is identified within that genus. Although this will not be included in Local List, it does help to pinpoint gaps in the I & M Program for each Network. In the case of invertebrates, enter the lowest taxon level with comments if additional information is present.
Data Source:	The principle source of a value entered in a single field, multiple fields, or an entire record as applicable.	For the checklist fields of the Park-Species List, individual Data Source fields for each checklist field makes the original single Data Source for the multiple fields obsolete. Common examples: Smith and Doe (2002) John Doe (pers. knowledge) Jane Smith (pers. Comm..) WIHO ANCS+ Database WIHO Observation Card Database WIHO Database Template Database	The preferred method for entering a data source in this field will be Author/Organization, year. NPBIB-#. For example, Yahner et al., 2004. NPBIB-563692.
Details	Additional details pertinent to the value entered in SPECIFIC FIELD if clarification or elaboration is desired.		See specific checklist fields below for more specific details.

Common Labels Throughout NPSpecies (continued)

Comments	Additional information pertinent to the values entered in an ENTIRE RECORD if clarification or elaboration is desired.		Additional data that does not fit into the specific details fields for each checklist item (nativity, abundance, residency etc.) can be added here. Add author, date and bibkey number to identify data source.
Last Modified By	The name of a person that last modified the existing record, or for reference links, the name of the person that last modified an existing link between a reference and a species.	See NatureBib regarding the documentation of who last modified a reference proper.	Use full first and last name. Do not use initials

Park-Species List

Label	Data Dictionary Definition	Data Dictionary Comments/Examples	Northeast Region Standards
Park Status	The current status of each species in each park.	Applicable only to organisms with the <i>Local List</i> checkbox checked. The possible values reflect a combination of confidence, and availability and currency of verifiable evidence in NPSpecies.	<ul style="list-style-type: none"> Species must be reported from within the park boundary, in the airspace above park land, or on adjacent non-park land. If a species is reported and it is uncertain if the species occurred within a park parcel or on adjacent private land, the species will be included on the park species list but the park status will be reported as <i>Probably Present</i>. Species found on ponds, lakes and streams within or bordering the park are included in the database. For species found bordering the park, park status will be reported as <i>Probably Present</i> or <i>Encroaching</i>. At coastal sites, species that are found in the intertidal area to the mean low water mark should be listed as <i>Present In Park</i> including marine fish, sea turtles, and marine mammals. Seabirds should be listed as <i>Present In Park</i> if they have been observed from the park property Species documented from beach strandings or storm wash-ups are not included in NPSpecies.
Historic	Species' historical occurrence in the park is documented, but recent investigations indicate that the species is now probably absent.	Extremely low confidence that the organism is currently in the park. Verifiable evidence exists in NPSpecies, but is not current. Extinct, extirpated or eliminated species are candidates for a Historic <i>Park Status</i> designation	<ul style="list-style-type: none"> There has been no evidence of species in the park within the last ten years.

Park-Species List (continued)

Abundance	The current abundance of each organism in each park.	Applicable only to organisms with the <i>Local List</i> checkbox checked and a <i>Park Status</i> of "Present". The values attempt to balance abundance with suitable habitat, and temporal/behavioral considerations. In practice, the entered value should apply (although there are numerous exceptions) to the abundance in the most suitable habitat of the organism, and at the time that the organism is engaged in it's principle behavior in (e.g. breeding, migrating, hibernating, etc.), or most important behavior to, the park. A future generation of NPSpecies will address the coding of <i>Abundance</i> (and associated <i>Residency</i>) to separate out the temporal and behavioral aspects. The Data Source field for Abundance is available to provide a citation that specifically addresses abundance in more detail.	<ul style="list-style-type: none"> The author's abundance definition in document must match Abundance definitions in Data Dictionary. If the definitions do not match, do not enter data in abundance field. This information can be listed in the Main Comments field, but the author must be noted using Data Source format. In cases where abundance varies by season, enter the Abundance for the season when the species is most abundant in the park.
Abundance Details			<ul style="list-style-type: none"> If data is available, add seasonal abundance using the format as given in this example (must include all four season): Winter = Abundant; Spring = Common; Summer = Uncommon;
Cultivation	Cultivation classification for each non-native organism in each park.	Applicable only to organisms with the <i>Local List</i> checkbox checked, a <i>Park Status</i> of "Present" or "Probably Present" and a <i>Nativity</i> of Non-Native. Cultivation is intended to distinguish between non-native organisms that were introduced as part of a park's mission, and non-native organisms that occur in the park naturally. Cultivation was not intended to apply to organisms that are cultivated for landscape purposes and have not persisted into the natural environment, for example plants in gardens or terrariums, or animals in enclosures. In general, NPSpecies was not intended to include controlled, "domestic" organisms.	<ul style="list-style-type: none"> Species planted for aesthetic purposes and not planted as part of the park's mission should not be entered, ex. Landscape beds at park entrance. Native species that are known to have been cultivated within the park are not acknowledged in this field. The cultivation should be listed as 'NA' and details should be listed in the 'Nativity Details' field.

Park-Species List (continued)

Weedy Plant?	Yes/No field for plant species only. Plant species are considered "weedy" or "invasive" if they (a) occur almost exclusively in disturbed habitats, (b) relatively recently occupied natural habitats in competition with native species, or (c) occur across a broad range of ecological conditions.	The definition of <i>Weedy Plant</i> has been found to be too general to be of use from both an ecological and managerial perspective. The <i>Pest</i> field was added to provide a more narrowly definition that was specifically oriented to management. No similarly narrow counterpart to the ecological aspects of the definition of <i>Weedy Plant</i> is currently in NPSpecies.	To avoid confusion pertaining to this field, <i>Weedy</i> =Invasive.
Pest?	Yes/No if a species is a "pest" in the park. "Pests are living organisms that interfere with the purposes or management objectives of a specific site within a park, or that jeopardize human health and safety." (NPS Management Policies 2001. Section 4.4.5.1)	Organisms identified by the park's Chief of Natural Resources or Invasive Species Management Team, or addressed in a park's Resource Management Plan or APCAM database are good candidates for having <i>Management Priority</i> checked in NPSpecies.	To avoid confusion pertaining to this field, emphasis is placed on the statement in the Data Dictionary definition of ' <i>Pest</i> , ' "jeopardizes human health and safety."
Management Priority?	Yes/No flag if a species is a management priority in the park.	Organisms identified by the park's chief of Natural Resources or addressed in a park's Resource Management Plan are good candidates for having <i>Management Priority</i> checked in NPSpecies.	Flag as management priority if addressed in other documents that qualify for entry into NPSpecies
Exploitation Concern	Yes/No if a species is an exploitation concern in the park.	Organisms identified by a park's law enforcers or contained within the Critical Incident Report System database are good candidates for having the <i>Exploitation Concern</i> checked in NPSpecies.	Flag as exploitation concern if addressed in other documents that qualify for entry into NPSpecies

Vouchers and Observations

Label	Data Dictionary Definition	Data Dictionary Comments/Examples	Northeast Region Standards
Steward/repository	Vouchers only. Acronym, name and address of herbarium, museum, collection or other location where voucher specimen is stored.		<ul style="list-style-type: none"> For NPS collections/herbariums format as: Parkcode/ (Herbarium/Collection)/Administrative Unit/Building Name or Number where collection is housed When only the repository name is documented, format as: Repository name (Museum Code); for example, Carnegie Museum of Natural History = CMNH
Sensitivity	Security level based on the sensitivity of this particular voucher or observation record.		<p>It is important that sensitivity values are assigned cautiously. Values can always be changed to public at a later date. Certifiers and I&M Program staff DO NOT assign "Park Only" to species.</p> <ul style="list-style-type: none"> Public=No species in document labeled as state/federally rare, threatened, or endangered. NPS Only=One or more species in document are labeled as state/federally rare, threatened, or endangered Park Only=For park staff only
Collector /Observer	Name(s) of collector(s) or observer(s).	Separate with commas if more than one.	Use full first and last name if available

References

Label	Data Dictionary Definition	Northeast Region Standards
Citation	Citation of the reference.	Use citation formats as listed in <i>The Chicago Manual of Style; 15th edition. 2003. The University of Chicago Press, Chicago and London p.753-54.</i> http://www.lib.ohio-state.edu/guides/chicagogd.html
Workform	The workform (e.g. Book, Report, Dataset, etc.) from the NatureBib database.	<p>Book=A bound publication of 49 or more pages that is not a magazine or periodical. aalbc.com/writers/publishing_glossary.htm</p> <p>Conference Proceedings=A compilation of papers presented at a conference. www.leeds.ac.uk/library/training/referencing/definitions.htm</p> <p>Dataset=A named collection of logically related data items arranged in a prescribed manner. www.fws.gov/data/IMADS/glossary.htm</p> <p>Journal article= A document published in a periodical issued by a society or institution and contain news, proceedings, transactions and articles about work carried out in a particular discipline. Intended for a scholarly audience. www.royalroads.ca/coppul/glossary.html</p> <p>Letter/Correspondence= Any other form of addressed, written communications that are sent and received such as letters, memorandums, and notes. www.epa.gov/records/gloss/gloss02.htm</p> <p>Map=Graphic representation of the physical features (natural, artificial, or both) of a part or the whole of the Earth's surface, by means of signs and symbols or photographic imagery, at an established scale, on a specified projection, and with the means of orientation indicated. www.epa.gov/ceisweb1/ceishome/atlas/learngeog/glossaryofmappingterms.html</p> <p>Report=The presentation of a formatted collection of information; can be presented on paper, on the web, on diskette, or online. www.uh.edu/fast/FAST-glossary.htm. Reports can be published (formal) or unpublished (informal).</p> <p>Thesis/Dissertation=Research project completed by a graduate students. libexp.hartford.edu/llr/libdef.htm. In University libraries, thesis usually refers to masters level work and dissertation usually refers to doctorate level work.</p> <p>Other= Miscellaneous articles or documents written by known scientists regarding species or the status of species within a park. Must have a known author and year associated with document.</p>
Sensitivity	Security level of the reference.	<p>It is important that sensitivity values are assigned cautiously. Values can always be changed to public at a later date. Certifiers and I&M Program staff DO NOT assign "Park Only" to species.</p> <ul style="list-style-type: none"> • Public=No species in document labeled as state/federally rare, threatened, or endangered. • NPS Only=One or more species in document are labeled as state/federally rare, threatened, or endangered • Park Only=For park staff only

PART TWO

UPLOADING DATA TO NPSPECIES ONLINE

Once data has been successfully added using the Desktop Application, it must then be submitted to COLO for upload to the NPSpecies Online Application. For the NER, data to be uploaded must be submitted to WASO by a designated POC.

POC's:

- Complete submission form located at the NPSpecies website below with contact information and instructions
- Send database with submission form according to instructions given at website below

<http://science.nature.nps.gov/im/apps/npspp/Documents.htm>; Section Data Processing, Click on Upload Data

REVIEWING THE DATABASE AFTER UPLOAD

This process involves reviewing the online version to make sure the data matches the original data that was submitted for upload. Once a database is uploaded to the NPSpecies online application, the data must then be reviewed. The POC/Acting POC will be notified by COLO when the data is uploaded. The POC/Acting POC then ensures the data is reviewed.

The following steps must be taken to completely review the data:

- Compare record numbers between original data and data online
- Compare species names and TSNs between original data and data online
- Check to make sure all intended fields were entered
- Check Data Sources, if added, to make sure they are accurate
- Check Evidence Data
 - Are new References present, if added?
 - Are new Vouchers present, if added?
 - Are new Observations present, if added?
 - For Vouchers and Observations, check to make sure UTM's or LAT/LONG #'s are correct

PARK DATABASE TRACKING LOG

For each park database, POC will maintain a Park Database Tracking Log, to accurately track datasets that are added or removed from the database. The Log will be maintained in an Excel or Word document that includes all of the fields listed below. The Log will be the primary document used for annually reporting NPSpecies database updates to each park.

PARK DATABASE TRACKING LOG: RECOMENDED FIELDS

Park: Parkcode
Type of Evidence (Reference, Observation, Voucher, ?Other)
Date Entered: Month/Day/Year
Entered By: Full first and Last Names
Bibkey ID:
Citation:
Observer (for Observation Evidence):
Steward/Repository (for Voucher Evidence):
Collector (s): (for Voucher Evidence)
Document Location:
Species Information:
Comments/Actions Taken: If include Actions Taken must include date.

Example Format:

Date Entered: 2/2/2004
Observer: Kathy Derge
Species Information: 49 herp observations—6 of which were added
Document Location: A list of these observations is associated with NPBIB-176358 and can be found on pages 73-75 of this document. The raw data is housed at Penn State in 204D Ferguson Building and consists of a blue binder and several field notebooks stored in a gray, plastic, portable file.
Comments/Actions Taken: Vouchered photos reportedly exist at GETT, but no identification numbers are given.

METADATA

When data are received for entry to NPSpecies, the POC will check for its' associated metadata and request the metadata if needed. For each data file, the Data Manager will also fill in the file Properties-Summary, Contents and Custom tab when appropriate. This metadata will be archived with the original data.

ARCHIVING DATA

Each January, a new folder titled “NPSpecies Archive (Network) (Current Year)” will be created. Each time new data is received or a major database action is completed, the new data or park database will be archived in appropriate park file within this folder. In December of each year, a Readme file labeled Readme NPSpecies Archive (Network)(Current Year) will be created describing the contents of the folder and placed within the folder. This folder will then be burned to a CD and archived. A The CD will be labeled “NPSpecies Archive (Network)(Current Year)”.

FILE NAMING CONVENTIONS

For the purpose of keeping files organized and consistent across the NER Networks, the following file naming conventions and storage folders are suggested:

Table 2. File Naming Conventions

Type of File	File Naming Convention	Examples	Folder Title
New Data from Cooperator	Authors File Name	MitchellHerps.xls	Parkcode Original Data (Year)
Data for Upload to NPSpecies Online	ParkcodeAuthorDate_DATA.MDB	ASISMitchellMay152004_DATA.MDB	Parkcode Upload Data (Year)
Park database “Working data”	Parkcode_DATA.MDB	GETT_DATA.MDB	Working Data (Year)
Park Database Submission Forms	ParkcodeSubmissionDate.doc	GETTSubmissionMay152004.doc	Submission Forms (Year)
Readme file	ReadmeNPSpeciesArchiveNetwork (Year).doc	ReadmeNPSpeciesArchiveNCBN (2004).doc	NPSpecies Archive (Network)(Year)

STAFF ACTIVITIES RELATED TO NPSPpecies DATABASE MAINTENANCE

The process of populating the NER I & M Program's NPSPpecies park databases involves the POC, Park staff and Expert Certifiers. Their roles in supporting the population of the NPSPpecies database are described below.

Point of Contact:

- 1. Manage web-based NPSPpecies access.* The POC will acquire login and password codes for all network park staff needing access to NPSPpecies via the Internet, and will ensure that the appropriate level of database permissions and control are granted (e.g., read only, read-edit, or read-edit-delete access). The POC will cancel permissions in the event staff employment, duty station, or responsibilities change.
- 2. Provide orientation, training, and technical support to park staff on NPSPpecies use.* The POC will instruct NPSPpecies users on the overall structure and function of NPSPpecies (both web-based and local versions), provide explanations and documentation on its use; and assist with questions users may have on how to query or manipulate NPSPpecies data.
- 3. Convert legacy datasets into formats compatible with NPSPpecies.* The POC will work with park staff to locate datasets containing NPSPpecies-related information, and to merge any appropriate portions of these datasets into NPSPpecies.
- 4. Ensure that voucher data obtained by WASO from national data mining efforts is accurately converted to NPSPpecies and reviewed.* As WASO staff obtains park-specific data from national and regional museums and herbaria, the POC will ensure that these data are accurately converted to NPSPpecies and that these data are made available for review by park-based staff.
- 5. Ensure any new NPSPpecies-related data collected from I&M or park projects are incorporated into NPSPpecies.* The POC will work with I&M cooperators and park resource management staff to ensure that NPSPpecies is properly updated to reflect any new data collected in the course of park research or management projects.
- 6. Ensure that sensitive data are designated as such and that user access permissions are coded appropriately.* The POC will work with park staff to identify these records for each park.
- 7. Ensure that species lists are reviewed by appropriate individuals and certified.* The completeness and accuracy of species-list data in NPSPpecies will be assessed by qualified reviewers (park staff or other) on a regular basis (DO #11B: Ensuring Quality of Information Disseminated by the National Park Service). The POC will be responsible for ensuring this review and certification process is undertaken and completed. The POC will perform QA procedures to assure that data fields for abundance, nativity, cultivation, and park and residency status categories of species are fully documented when a certifier deems a database completed.

8. Ensure that new species vouchers destined for entry into ANCS+ are also entered into NPSpecies.

Data associated with species vouchers are now compatible between ANCS+ and NPSpecies. The POC will coordinate with parks so that, to the extent possible, voucher data are entered directly into NPSpecies then exported electronically to ANCS+, thus avoiding duplication of data entry.

9. Ensure that species nomenclature used for park species lists is referenced and accepted by leading authorities, and, to the extent possible, is compatible among network parks.

10. Ensure that all sources of NPSpecies records are documented, and that additions, changes or deletions to records are substantiated and performed with the concurrence of park staff.

Certifiers:

1. Add additional data to assigned park NPSpecies database as needed

Park staff:

*1. 1. Provide NER I&M Program
Network staff with new non-I &M park
data and reports*

2. Work with POCs to complete Sensitivity and Management Priority fields in park database